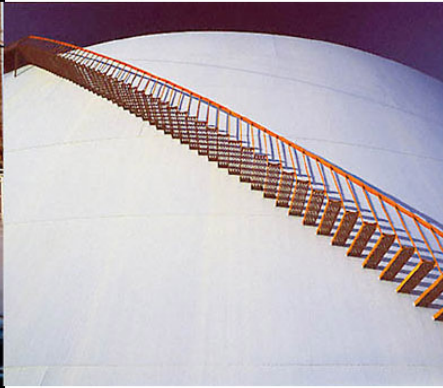


## **ESSENTIAL SERVICES TASK FORCE**



### **August 2003 Kinder Morgan Pipeline Disruption**

Prepared For: Governor Napolitano

Prepared By: Members of Governor Napolitano's  
Essential Services Task Force



Adopted MAY 17, 2004

## Introduction

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Gasoline is vital to the economy and welfare of Arizona. All of the gasoline consumed in the state comes from refineries located elsewhere, mostly in southern California, western Texas and New Mexico. The Phoenix metropolitan area consumes approximately 65 percent (109,000 barrels [4.6 million gallons]) of the state's average daily gasoline supply. Movement of gasoline from refineries to Phoenix retail service stations involves a complex, "[just-in-time](#)" [delivery system](#) that hinges on two refined products pipelines, both of which are currently owned and operated by Kinder Morgan Energy Partners, LLC. The [West Line](#), from the Los Angeles area to Phoenix, has been in operation since the late 1980s and today provides about 60 percent of the Valley's gasoline; the 50-year-old [East Line](#), connecting El Paso to Phoenix by way of Tucson, carries the remainder. The East Line currently runs at capacity, while the West Line has spare capacity.

On July 30, 2003, Kinder Morgan detected a rupture in a portion of the East Line between Tucson and Phoenix. Though initial estimates placed the fuel release at 10,000 gallons, Kinder Morgan, after continued prompting from the Arizona Department of Environmental Quality (ADEQ), later advised that approximately 16,000 gallons had been released into Silvercreek Wash and Silver Creek subdivision of Tucson contaminating soil and groundwater in the area. As of the date of this report, more than 32,000 gallons of gasoline had been removed from the Wash and the affected aquifer, with substantial volume remaining to be removed.

Kinder Morgan has stated that it initially thought the rupture had resulted from common corrosion or a seam failure, which occur periodically on refined products pipelines. The company initiated an established recovery procedure for such incidents and restarted the East Line at reduced pressure within 48 hours of the rupture.

Following the release, Kinder Morgan shipped a 53-foot section of the ruptured pipeline to its contracted laboratory, Exponent, for analysis.

Seven days after the rupture, on Aug. 6, the federal Office of Pipeline Safety (OPS), which regulates interstate hazardous liquid pipelines, issued a Corrective Action Order for the incident, which, among other things, outlined procedures specific to seam failures for bringing the East Line back to normal operation. Per the Corrective Action Order, Kinder Morgan initiated a restart of the pipeline at a reduced operational capacity, which was to be increased gradually to normal levels over several days. Before this could occur, however, Kinder Morgan received the results of the [Exponent analysis](#), which showed the rupture had been caused not by common corrosion or seam failure but by [stress corrosion cracking](#). According to OPS, stress corrosion cracking is an uncommon occurrence in hazardous liquid pipelines, which operate at lower pressure than natural gas pipelines, where stress corrosion cracking is seen more frequently. (OPS has since confirmed through its own [independent analysis](#) that stress corrosion cracking caused the rupture.)

Upon receiving the test results, Kinder Morgan, on Aug. 9, shut down the entire East Line and began to develop a plan to repair and test the pipeline and obtain approvals from OPS. Kinder Morgan had not developed an OPS-approved recovery protocol for this type of problem despite similar recent occurrences elsewhere in the industry. According to OPS, this was the third stress corrosion cracking incident to occur in hazardous liquid pipelines during 2003.

Kinder Morgan resumed operation of the 12-inch portion of the pipeline between El Paso and Tucson on Aug. 12, but the Tucson-to-Phoenix portion remained closed until Aug. 24 when Kinder Morgan restored some operational capacity by completing a bypass using an existing 6-inch refined products pipeline running parallel to the East Line. During the 16-day shutdown, the pipeline ruptured again during hydrostatic testing. Restarting the line at reduced capacity, Kinder Morgan supplied about 35,000 barrels (1.47 million gallons) a day to the Phoenix terminals, as compared to approximately 54,000 barrels (2.27 million gallons) a day before the rupture.

Before the East Line supply could be restored, the public began a run on Valley service stations Saturday night, Aug. 16, that continued through the following day. The sharp demand increase overwhelmed the “just-in-time” gasoline delivery system. Amid disrupted fuel deliveries, many stations were unable to replenish supplies fast enough and had to close temporarily. For several days, long lines formed at service stations that had gasoline. Meanwhile, regional gas prices soared to unprecedented levels as California refineries used the spare capacity available in the West Line to restore about 92 percent of the volume that had been coming in to the Phoenix terminals. AAA Arizona reported that average Phoenix [pump prices](#) rose about 60 cents through the month of August, and the Attorney General’s Office said it received more than 1,000 complaints of excessive pricing, including some confirmed reports of stations charging \$3 to \$4 a gallon for regular unleaded. News media reports of closed stations and long lines of frustrated customers added to the growing unease.

Gov. Janet Napolitano urged citizens to refrain from panic buying. Meanwhile, she directed Kinder Morgan and fuel industry officials to work with state and federal regulators to resolve the emerging crisis. Her efforts were hampered by an inability to get complete and accurate information from Kinder Morgan and gasoline suppliers, which in turn compromised her ability to keep the public fully informed about the available gasoline supply and to alleviate the perception of crisis.

At the peak of the supply disruption, on Aug. 20, Gov. Napolitano announced the appointment of the Essential Services Task Force, with the following stated mission:

The primary mission of the Task Force is to undertake a proactive review of the gasoline disruption resulting from the rupture of the pipeline outside Tucson, interrupting the supply to Arizona consumers and resulting in untenable gasoline lines and price increases. The Task Force’s goal is to recommend measures to

prevent such occurrences in the future. By extension the Task Force will also evaluate the State's other essential services and infrastructures; not limited to but certainly including industries which provide power (electricity), natural gas and water. The Task Force is committed to identifying actionable recommendations that will benefit all Arizonans.

Chaired by former Tosco CEO Robert Lavinia, the [12-member task force](#) represented a variety of government and industry sectors whose expertise would be valuable to the panel's deliberations.

The task force held its first meeting Sept. 1, and has met monthly since then to consider [presentations](#) by Kinder Morgan, state and federal agencies that monitor or regulate the pipeline, and industry representatives who shared their perspectives and recommendations on the supply disruption and its aftermath.

The task force also requested that the Arizona State University Engineering Department conduct a [benchmarking study](#) to compare Kinder Morgan's practices and handling of the rupture relative to other pipeline companies.

The task force made its draft report available for public comment from April 15 to May 6, 2004, with [comments](#) received from the following individuals and organizations:

Michael Naumowich  
Kathryn Senseman, Southwest Gas  
Ursula Kramer, Pima County Dept of Environmental Quality  
BP North America  
Kinder Morgan Energy Partners  
Western States Petroleum Association

## **Key Findings and Conclusions**

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The task force has prepared a [chronology of events](#) that occurred during the August 2003 supply disruption. With an understanding of what transpired and when, the task force has drawn the following conclusions about what occurred during the event and what has happened since then to diminish the likelihood of a recurrence:

1. A combination of factors caused the fuel supply shortage. Had any one of the following not occurred, the disruption would have been much less significant.
  - a. Stress corrosion cracking caused the pipeline rupture.
  - b. Kinder Morgan did not have a federal Office of Pipeline Safety-approved recovery plan in place to address stress corrosion cracking. Consequently, additional time was needed to assess the problem correctly, obtain required approvals, develop and implement a solution and re-

establish supply. According to OPS, this was the third stress corrosion cracking incident to occur in hazardous liquid pipelines during 2003.

c. Panic buying resulted in a public run on Phoenix area retail stations from late Saturday, Aug. 16, through Sunday, Aug. 17, which placed excessive strain on the gasoline delivery system. Though the demand spike was short-lived, stations continued to experience long lines for several days until the delivery system could recover.

d. Once the public run on Valley service stations had begun, logistical problems at supply terminals compromised the ability of suppliers to get fuel trucks from terminals to retail stations. Moreover, industry practices related to contractual agreements and price structures did not allow sharing of available gasoline at the Phoenix terminals by those who needed it. Suppliers chose not to alter their purchasing contracts that would have enabled them to buy more gasoline from the Phoenix terminals via the West Line. With the East Line supply to the Phoenix terminals temporarily closed, suppliers who were contractually obligated to purchase or supply product from the East Line sent tanker trucks to Tucson to retrieve their product at the Tucson terminals. The large increase in tanker trucks loading product for the Phoenix market overwhelmed the much smaller Tucson terminals. ([Read details.](#))

2. Given existing gasoline supply capabilities, to prevent a potential demand spike caused by a perceived disruption in supply, Kinder Morgan and suppliers need to be able to resolve problems within 72 hours.
3. Communication and planning between government and industry must be improved. Information that was critical to the governor's ability to assess the severity and impact of the supply disruption was not readily forthcoming. The state lacked authority to require industry to provide information on terminal inventories, pipeline field schedules, station outages and delivery capabilities. As a result, the state had to rely on industry to submit this information voluntarily, and while many companies did, others did not. This incomplete reporting was further complicated by the concern of some state agencies about sharing confidential, company-specific information related to fuel supply and deliveries that industry had reported voluntarily. Specifically, the agencies and suppliers expressed concern about lacking the statutory authority to prevent the release of competitively sensitive information. Ultimately, this inability to fully share information compromised the governor's efforts to keep the public fully informed about the available gasoline supply and alleviate the perception of a crisis.
4. Terminals did not run out of [Arizona CBG](#) at any point during the supply disruption. ([Read details.](#))



5. Insufficient data were available on the demand for gasoline during the supply disruption.
6. The pipeline rupture saturated five adjacent homes that were being readied for occupancy. Kinder Morgan underestimated the amount of fuel that was actually released into the soil and groundwater. Environmental cleanup is proceeding under the supervision of ADEQ. ([Read details.](#))
7. Pipelines are, and will continue to be, the most efficient, reliable, cost-effective means of supplying fuel to Arizona. The task force examined the potential for the following options and found none to be currently viable. ([Read details.](#))
  - Tanker Truck
  - Rail
  - Strategic Fuel Reserve
8. [Efforts are planned or being implemented to increase capacity to deliver and store fuel supplies at Phoenix.](#)
  - Kinder Morgan East Pipeline Expansion
  - Longhorn Partners Pipeline
  - Phoenix Terminal Expansion
9. Kinder Morgan now has an OPS-approved procedure for externally testing pipeline integrity for stress corrosion cracking. Moreover, technological advances are anticipated within the next few years that will enable improved testing in smaller diameter pipelines.

## **Summary of Recommendations**

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Based on the testimony received and lessons learned from the pipeline incident, the Governor's Essential Services Task Force has approved the following list of draft recommendations, which it will disseminate for public comment before forwarding its final recommendations to the governor.

### *Enhancing Communication*

- Support adoption of data reporting and confidentiality legislation.
- Make information about hazardous liquid pipelines available to the public.
- Require notification of homeowners in the vicinity of hazardous liquid pipelines.

### *Enhancing Public Protection*

- Support adoption of legislation to prevent price gouging of essential products and services during declared supply emergencies.
- Require wider setbacks and buffer zones near hazardous liquid pipelines in future housing developments.

- Require hazardous liquid pipeline operators to provide advance notification of pipeline testing and immediate incident notification for local emergency responders and regulatory agencies.

#### *Enhancing Government Response*

- Formalize a state government Gasoline Working Group that reports to the governor for the purpose of collecting and analyzing data, advising the governor and coordinating with industry and government agencies on gasoline supply issues.
- Update and be prepared to implement the Motor Fuel Emergency Response Plan.
- Extend ADEQ permitting authority to cover hazardous liquid pipelines.
- Encourage improvements in the federal Office of Pipeline Safety's regulatory authority over interstate hazardous liquid pipeline operation in Arizona.
- Identify and implement logistical improvements in advance of emergencies (i.e., priority fueling for public safety personnel, National Guard vehicle compatibility, truck driver maximum hours).
- Direct ADEQ to work with the U.S. EPA to clarify EPA's process by which the state may request a grant of enforcement discretion to enable use of noncompliant fuels in the nonattainment area during a supply emergency.
- Direct ADEQ to develop statutes and rules to allow for the use of certified California Air Resource Board blends of gasoline within the Arizona CBG Covered Area if it can be demonstrated that a supply shortage or emergency is imminent.

#### *Enhancing Industry Response*

- Support efforts to enhance flexibility for fuel supplies (i.e., increased pipeline capacity, competition, storage capacity, loading racks).
- Assess the status of individual fuel supplier contingency plans for making fuel available to retail service stations during supply disruptions.
- Maximize security at motor fuel terminals.
- Develop redundancies and alternatives, including bypass options, as practicable, to ensure that pipeline failures can be corrected within 48 to 72 hours of an occurrence.

#### *Enhancing Demand-side Incentives*

- Support continuation of the federal tax deduction for purchasing new hybrid vehicles.
- Support other non-monetary methods to encourage private sector consumers to choose fuel-efficient vehicles.
- Incorporate increasingly greater numbers of hybrid and/or flex-fuel vehicles into governmental fleets.
- Recognize and support state and community efforts to enhance alternative transportation programs, especially in times of supply disruption.

## Recommendations

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### *Enhancing Communications*

#### **1. Support adoption of data reporting and confidentiality legislation.**

##### Discussion:

After the pipeline rupture the Arizona Department of Weights and Measures (ADWM) began requesting information from industry in order to monitor the impact on supply. Specifically, terminal inventories and retail station outages were collected. These data were extremely helpful in confirming the extent of the shortage and identifying bottlenecks in the system. The level of cooperation varied among industry members, with some unable or unwilling to provide information as requested. As a result, ADWM's data collection was incomplete and government's assessments and decisions were not as well-informed as they could or should have been. Without specific authority, ADWM had no tools to require cooperation with their efforts to address the problems.

During the pipeline disruption, industry often expressed concern about the state's inability to protect information that it was gathering. Currently, the Arizona Department of Commerce lacks the authority to declare information it receives as confidential. Several companies expressed concern about the potential damage that could be caused if competitively sensitive information was released in a public records request. This inability to share information compromised government's ability to fully assess the supply disruption and advise the governor so that she could inform the public and alleviate the perception of a crisis.

Industry also favors statutory protection for competitively sensitive information.

#### **2. Make information about pipelines available to the public.**

##### Discussion:

The Arizona Corporation Commission serves as an agent of the federal Office of Pipeline Safety for matters involving interstate hazardous liquid pipelines. In this capacity, the Commission does not have authority or control over documents and materials related to regulation of interstate hazardous liquid pipelines. Freedom of Information Act (FOIA) requests for such documents and materials must be submitted to OPS for review and action.

The intent of this recommendation is to ensure that the public is informed about hazardous liquid pipelines and that information is made available to the public.

This recommendation would require legislation to implement and is intended to make all reports and documents produced relating to the Commission's role in regulating hazardous liquid pipeline facilities subject to the state's public records laws. Restricted



documents include any pertaining to ongoing investigations, containing proprietary information, or produced by the Commission in its capacity as an OPS agent.

Under this recommendation, the Commission would be required to issue a public notice on its Web site of any records that are closed subject to the federal government's rights of preemption.

**3. Require notification of homeowners in the vicinity of hazardous liquid pipelines.**

Discussion:

Property owners need to know where hazardous liquid pipelines are located in relation to the homes or businesses. Some residents in the area of the East Line rupture and along the pipeline route indicated that they were not aware of the pipeline's proximity to their homes and were concerned about the potential safety hazards associated with the pipeline. Notification would allow potential residents to make more informed decisions about whether or not they chose to live close to a pipeline.

This recommendation would require statutory changes to implement. Taking into account existing requirements applicable to pipeline owners and others, the recommendation would require that all public reports for lots or parcels in subdivisions located near a hazardous liquid pipeline include a specific disclosure statement on the location of the pipeline easement in relation to the property. The Arizona Department of Real Estate shall determine the reasonable distance that must be reported. Subsequent buyers must also be notified.

This recommendation also encourages the Arizona Corporation Commission to work with the federal Office of Pipeline Safety to ensure that pipeline companies have required signage along their pipeline routes in Arizona.

*Enhancing Public Protection*

**4. Support adoption of legislation to prevent price gouging of essential products and services during declared supply emergencies.**

Discussion:

The Attorney General's Office reported it had received more than 1,000 consumer complaints of excessive pricing from the August 2003 gasoline shortage. In Arizona, however, the Attorney General is unable to prosecute for excessive pricing of gasoline. Twenty-four states, one territory and the District of Columbia have some form of prohibition against excessive pricing, especially during emergencies.

This recommendation is intended to protect Arizona consumers from excessive pricing of a product or service during a supply emergency.

**5. Encourage wider setbacks and buffer zones near hazardous liquid pipelines in future housing developments.**

Discussion:

At the time of the East Pipeline's installation in 1955, the line was located some distance from most development. However, over time homes and businesses have encroached on the pipeline's route. Wider setbacks and buffer zones (i.e., utility corridors) would establish an official distance between a pipeline and future development. This could minimize the likelihood of damage if a rupture occurred again.

This recommendation encourages municipalities to study encroachment of gasoline pipelines in their jurisdictions and the feasibility of establishing setback buffer zones between those pipelines and future development. It also encourages pipeline companies to study the feasibility of widening their easements to create more distance between pipelines and future development.

**6. Require hazardous liquid pipeline operators to provide advance notification of pipeline testing and immediate incident notification for local emergency responders and regulatory agencies.**

Discussion:

This recommendation proposes a statutory change to require that hazardous liquid pipeline operators notify local fire departments at least three days before conducting hydrostatic tests on their pipelines. Currently, if not part of a scheduled inspection, regulators and local emergency responders are not required to be notified when such tests are performed.

As the name implies, a hydrostatic test uses water, and as such, the test itself is not a safety risk. However, unless it is part of a required inspection, a hydrostatic test may signal that a pipeline problem is suspected. By requiring notification in these instances, regulators and local emergency responders may have advanced warning of a potential problem.

An exception would be made for cases of emergency, when advance notification would not be practicable. Operators would instead be required to immediately report any rupture, explosion, fire or failed test or inspection that poses an imminent danger to the public to local fire departments and the Arizona Corporation Commission. The Commission must then notify the Arizona Department of Emergency and Military Affairs and the Arizona Department of Environmental Quality.

- 7. Formalize a state government Gasoline Working Group that reports to the governor for the purpose of collecting and analyzing data, advising the governor and coordinating with industry and government agencies on gasoline supply issues.**

*Discussion:*

In the spring of 2003, the governor directed that several executive branch agencies designate individuals to serve on a gasoline working group. The group's role was to collect fuel-related data and advise the governor on gasoline issues, particularly during supply disruptions.

This recommendation proposes to formalize the Gasoline Working Group and require its member agencies develop plans for dealing with gasoline supply disruptions. The recommendation also proposes that a single point of contact within government be established to clarify lines of communication and coordinate with industry during supply disruptions and other emergencies.

- 8. Update and be prepared to implement the Motor Fuel Emergency Response Plan.**

*Discussion:*

The Arizona Department of Commerce, Energy Office, had developed a Motor Fuel Emergency Response Plan in 1990, but the document had not been updated before the August 2003 fuel shortage. This recommendation directs the Gasoline Working Group to work in consultation with the Division of Emergency Management to update the Motor Fuel Emergency Response Plan within six months of completing a communications action plan that provides strategies and tactics for implementing two-way communication between the gasoline working group members, other state and local government officials, affected industry, the news media and the public. The Gasoline Working Group shall develop the communications plan within six months of the group's formalization, and shall coordinate with the Division of Emergency Management to test the Motor Fuel Emergency Response Plan on a recurring basis.

Within a year of updating the Motor Fuel Emergency Response Plan, the Gasoline Working Group shall assess the availability of individual emergency response and recovery plans for use in times of declared emergencies or extended gasoline supply disruptions among local emergency responders. To the extent practical, the working group should serve as a resource to these local agencies to coordinate integration of their plans with the state's Motor Fuel Emergency Response Plan.

**9. Extend ADEQ permitting authority to cover hazardous liquid pipelines.**

Discussion:

In Arizona, a facility must obtain an Aquifer Protection Permit (APP) from ADEQ if it discharges a pollutant either directly to an aquifer or to the adjacent land surface such that it may reach an aquifer. Pipelines presently are specifically excluded from the APP requirement, however. The APP statute should be amended to include hazardous liquid pipelines so that the agency is better able to address leaks when they occur.

**10. Encourage improvements in the federal Office of Pipeline Safety's regulatory authority over interstate hazardous liquid pipeline operation in Arizona.**

Discussion:

Arizona Corporation Commission Chairman Marc Spitzer has offered a [list of recommendations](#) for improving the Office of Pipeline Safety's infrastructure, processes and relationships with state, county and local governments.

This recommendation proposes that the Governor's Office work with the state's congressional delegation to encourage consideration and action on those recommendations.

**11. Identify and implement logistical improvements in advance of emergencies (i.e., priority fueling for public safety personnel, National Guard vehicle compatibility, truck driver maximum hours).**

Discussion:

In an extended supply disruption, it would be important to ensure that emergency responders (police, fire and ambulances) have access to fuel. The Gasoline Working Group, within six months of formalization, should work with emergency responders to confirm that they have a plan in place.

In addition, the National Guard should study the feasibility of retrofitting their gasoline tankers to allow them to get fuel directly from the tank farms during emergencies and report its findings and recommendations to the governor within six months of the Gasoline Working Group's formalization.

Other options need to be investigated relative to motor fuel delivery practices, including, within six months of the Gasoline Working Group's formalization, the Department of Public Safety should document its process for increasing motor fuel delivery truck drivers' maximum weekly driving hours and develop rules that result in the expeditious increase of maximum driving hours during an extended motor fuel supply disruption. Note, coordination with other states will be necessary, as Arizona's changes will not pertain elsewhere.

**12. Direct ADEQ to work with the U.S. EPA to clarify EPA's process by which the state may request a grant of enforcement discretion to enable use of noncompliant fuels in the nonattainment area during a supply emergency.**

Discussion:

To help ensure that the air quality in Phoenix remains within the healthful levels set by the federal government, Maricopa County (and parts of northern Pinal and southeastern Yavapai counties) have been designated a non-attainment area for certain kinds of air pollution. As part of the federally approved air quality [State Implementation Plan](#) governing the Phoenix non-attainment areas, the kind of gasoline that may be used here in summers and winters is restricted to cleaner burning fuel blends known as Arizona Cleaner Burning Gasoline, or [Arizona CBG](#).

During the August 2003 gasoline supply disruption, the governor directed ADEQ to request that the U.S. EPA grant enforcement discretion to allow use of conventional gasoline, thereby increasing the amount of fuel available for the Valley. On Aug. 19, [ADEQ submitted a letter to EPA](#) requesting a grant of enforcement discretion. [EPA approved this request on Aug. 20](#). The grant of enforcement discretion was conditioned upon regulated parties taking "all reasonable steps to produce and supply CBG gasoline or the cleanest gasoline possible" to the non-attainment area. That same day, the Arizona Department of Weights and Measures ([ADWM](#)) [issued a letter to the regulated industry](#) announcing EPA's decision to allow the transport, delivery and sale of gasoline other than Arizona CBG in Maricopa County through Sept. 19. Because ample supplies of Arizona CBG were available, only 1.2 million gallons non-CBG fuel was reported sold in the Phoenix non-attainment area during this time – about a quarter of one day's gasoline use. In fact, EPA noted in its [Sept. 2, 2003, letter to ADEQ](#) rescinding the grant of enforcement discretion, "[t]o date no gasoline suppliers have notified EPA of their need to supply noncompliant gasoline."

ADEQ and ADWM have asserted that fuel supply data submitted voluntarily by industry to ADWM needs to be immediately available to ADEQ so it can evaluate the basis for requesting a grant of enforcement discretion and, if warranted, make a compelling case for EPA consideration. EPA will require specific information about the types and quantities of fuel that are being brought in to the Valley, whether by pipeline or other means. EPA will use that information to confirm to its satisfaction that a supply emergency exists and that granting enforcement discretion related to supply of noncompliance gasoline will not compromise Valley air quality.

Thus, this recommendation is closely allied with the data reporting and confidentiality recommendation noted earlier in this report.

**13. Direct ADEQ to develop statutes and rules to allow for the use of certified California Air Resource Board blends of gasoline within the Arizona CBG Covered Area if it can be demonstrated that a supply shortage or emergency is imminent.**

Discussion:

Arizona needs to be able to reach out to all sources of additional gasoline if a supply shortage or emergency is imminent. Existing statutes allow for exceptions to the Arizona CBG regulations if it can be demonstrated that a supply shortage of ethanol is imminent. These regulations can be developed to allow for the use of a clean CARB certified blend of gasoline if it can be demonstrated that a supply shortage of Arizona CBG is imminent. Regulatory language would include a petition form, and a means of verifying the California certification, and volumes shipped, of CARB gasoline into the Arizona CBG Covered Area.

*Enhancing Industry Response*

**14. Support efforts to enhance flexibility for fuel supplies (i.e., increased pipeline capacity, competition, storage capacity, loading racks).**

Discussion:

The task force recognizes that whatever enhancements can be made to increase flexibility for fuel supplies will need to make sense economically and from a regulatory standpoint. Increased competition, where practicable, should be encouraged.

The task force also recognizes that there are already [efforts underway to expand Arizona's fuel supply infrastructure](#).

To appreciate better the context for this recommendation, read an [overview of Arizona's motor fuel distribution system](#).

**15. Assess the status of individual fuel supplier contingency plans for making fuel available to retail service stations during supply disruptions.**

Discussion:

Within six months of completing the communications action plan of the Motor Fuel Emergency Response Plan, the Gasoline Working Group shall communicate with the petroleum industry to determine whether motor fuel suppliers have developed contingency plans for ensuring the continued supply of motor fuel in Arizona during extended supply disruptions.



## **16. Maximize security at motor fuel terminals.**

### **Discussion:**

The task force recognizes the vulnerability of terminals as possible targets of terrorism. The Gasoline Working Group and the Governor's Office of Homeland Security should work together to encourage industry to implement best available technologies and practices to ensure the safety and dependability of Arizona's fuel supply.

## **17. Develop redundancies and alternatives, including bypass options, as practicable, to ensure that pipeline failures can be corrected within 48 to 72 hours of an occurrence.**

### **Discussion:**

Based on the existing fuel storage capacity in the Phoenix area, the task force recommends that Kinder Morgan and other industry members develop and be prepared to implement the redundancies and alternatives needed to achieve a goal of being able to address pipeline failures within 72 hours. This includes having the necessary procedures and approvals in place before a failure.

### *Enhancing Demand-side Incentives*

The previous recommendations in this report address steps that would help ensure Arizona continues to receive an adequate supply of gasoline. However, taking steps to assure supply alone does not address the state's dependence on external gasoline supply sources. Demographic trends foretell continued population growth for Arizona, with an accompanying increase in passenger vehicles and greater dependence on gasoline. The state should encourage actions that help reduce demand for gasoline, promote energy conservation and foster greater control over Arizona's energy and economic security.

Only a few of the demand-side policy tools are within a scope and scale that can be addressed by Arizona on a stand-alone basis. The following are some policy prescriptions available to the state acting alone, and they rely on tax policy, available technology, market mechanisms, and leadership-by-example.

## **18. Support continuation of the federal tax deduction for purchasing new hybrid vehicles.**

### **Discussion:**

Demand side management can be an important tool in Arizona's, and the nation's, move away from an excessive dependence on fossil fuels. The supply disruption that took place last August highlighted the vulnerabilities of a transportation system that is overly dependent on gasoline as its primary fuel. In addition, consumers driving heavy, inefficient vehicles drive demand for gasoline high, forcing all drivers to pay higher

gasoline prices. All other things being equal, a more fuel-efficient fleet will reduce demand, which would stabilize gasoline prices or drive them lower.

In 1978, at the height of the oil crisis of that era, the federal government formally recognized the relationship between fuel economy and national economic insecurity, and instituted a [federal Gas Guzzler Tax](#) on inefficient passenger vehicles that is still in effect today. In addition, there is currently a [federal tax deduction](#) available for the purchase of new hybrid vehicles; however, this deduction is currently scheduled to be phased out during the next two years. The State should support the continuation of this federal deduction to encourage the purchase of fuel-efficient vehicles. This approach does not reduce customer choice, but instead uses market forces and price signals to reward consumption patterns that contribute to Arizona's energy security – not undermine it.

**19. Support other non-monetary methods to encourage private sector consumers to choose fuel-efficient vehicles.**

Discussion:

In addition to financial incentives to encourage the purchase of fuel-efficient vehicles, other non-monetary means to reward drivers of such vehicles should be examined and adopted. One example is to allow drivers of hybrid vehicles to use high-occupancy vehicle lanes.

**20. Incorporate increasingly greater numbers of hybrid and/or flex-fuel vehicles into governmental fleets.**

Discussion:

A [California Energy Commission \(CEC\) report](#) published in August 2003 examined a number of vehicle efficiency scenarios using both existing and concept vehicle and vehicle-related technologies. Marginal net benefits accrue from greater attention paid to vehicle maintenance and the use of more efficient replacement tires. Additional petroleum savings can come from increasing blending of ethanol into gasoline ([“flex-fuel” vehicles](#) can run on blends up to 85 percent ethanol). Very large, multi-billion dollar benefits accumulate from progressively greater replacement of the gasoline-powered vehicle fleet with [hybrid gasoline/electric vehicles](#), a technology available in today's market. The report concluded that “the increased purchase price of a new [hybrid] car is more than offset by the lifetime fuel savings.” (These savings become even more pronounced in a high gasoline price scenario beyond the \$1.47 to \$1.81 range assumed in the report).

If the CEC report is accurate, hybrid vehicles could be purchased for the state fleet at net lifetime savings, a critical determinant in tight budget times. If gasoline costs do continue skyward, such vehicles could represent a good hedge against increased costs to the state in the future.

**21. Recognize and support state and community efforts to enhance alternative transportation programs, especially in times of supply disruption.**

Discussion:

There are existing, effective programs that encourage ridesharing, carpooling and other consumer behaviors that are of critical importance in times of fuel supply disruption. Where necessary, such programs should be enhanced and expanded. Examples of these programs are listed on the [Capitol Rideshare](#) Web site.